

Sound Techniques for Tuning your Health

*Modern voice-
and machine-
aided sound
therapies can
restore the range
of harmonious
frequencies
necessary for
complete physical
and emotional
good health.*

by Sharry Edwards ©1997

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BIOLOGICAL PRINCIPLES AND PROCESSES

Sound therapy can most aptly be described as a cross between music therapy and biofeedback. It is related to music inasmuch as specific combinations of sounds are used; but not necessarily sounds that would be considered musical by even the most lenient critic. Biofeedback comes into play as low-frequency sounds are presented to elicit specific biological and emotional responses.

Some similarities to light therapy are obvious since both use the concept of full-spectrum oscillation. Light as a healing modality seeks to use full-spectrum light, while sound therapy employs the idea of full-spectrum sound.

The process of sound therapy requires two distinct processes if maximum results are to be achieved. First, it is essential to determine the individualised patterns for each person, prior to any actual sounds being provided. Just as important are the sound formula sets that must be specifically constructed and presented to each individual. Both steps must be comprehensively performed to ensure that each person be given the most accurate and complete approach available.

Sound therapy seeks to influence the systems within the body that produce, interpret and use frequency. It was probably performed intuitively as a response to human interactions even before the ability to make and interpret sound consciously was realised. Using computer analysis, the sounds of spontaneous moaning, groaning, yawning, screaming, sighing, laughing, and 'filler' sounds such as "mmm" and "ah" have been found to contain the stressed frequencies that are required to elicit improvement.

The principles of sound therapy originate with the idea that the brain perceives and generates impulse patterns that can be measured as brain-wave frequencies which, in turn, are delivered to the body by way of nerve pathways. The theory incorporates the assumption that these frequency impulses serve as directives that sustain structural integrity and emotional equilibrium. When these patterns are disrupted, the body seeks to reveal the imbalance by manifesting symptoms that are interpreted as disease and stress.

Enquiries by modern as well as ancient researchers have attempted to develop a screening procedure that would accurately delineate the frequency measurements of the body.

BIOACOUSTICS AND THE TOMATIS METHOD

One approach to sound therapy is BioAcoustics, which uses voice spectral analysis as a tool to identify and interpret the constant, complicated frequency interactions within the body. The technique has given insight into the possibility that the frequencies contained in the vocal patterns provide a holographic representation of the human body. (In the animal kingdom, vocalisation patterns are being studied as a representation of the environment. This is a separate branch of BioAcoustics.)

A second approach, known as the Tomatis Method, identifies stressed frequencies by auditory screening. It is based on the principle that the voice contains only what the ear can hear.

Each method is clearly distinct in approach and strategy but both evaluate the body for stressed frequencies. By introducing individualised sets of sound formulas, each approach seeks to establish continuity within the frequency systems of the body.

Although different in approach, evaluation, instrumentation and fields of research interest, both BioAcoustics, using vocal assessment, and the Tomatis auditory method are compatible considering that both have the same goals in mind: structural and emotional integrity.

Auditory assessment for the purposes of sound therapy was founded by Alfred A.

Tomatis, a French physician, psychologist and educator. BioAcoustics, with emphasis on human voice spectral analysis, was originated in 1982 by Sharry Edwards, M.Ed. The foundational work accomplished by these two pioneers will likely support many variations of sound therapy as the data and acceptance expand.

PRINCIPAL CONCEPTS

Sound therapy proposes the idea that the body requires the presence of a full range of harmonious frequencies working cooperatively. Consider the body as a musical instrument. When even one note is out of tune, the result is often discordant. Tune the instrument and the sounds become consonant.

It has long been known that sounds reflected from a metal girdler can predict the integrity of the structure. This parallel was used to develop the process of using sound to test the integrity of bone density and formation. Each structure and process within the body has a distinctive combination of frequencies that must be present for the body to maintain integrity. The body is capable of being self-diagnostic, but not so capable of self-generating the frequencies that are required for restoration.

The idea of using sound to facilitate change within the body is



Sharry Edwards, M.Ed., founder of BioAcoustics

not a contemporary notion. Song and movement to create mood and provide physical dominion over the body was an intimate part of almost every culture on Earth, but those efforts were often surrounded with superstition and mysticism.

It wasn't until recent times that computerised technology and instrumentation was developed that allowed the advancement of procedures that could be used to help the body to predict and prescribe for itself. By correctly interpreting the data, appropriate patterns could be provided to help the body reverse its own disease.

SIGNATURE SOUND FREQUENCIES

According to the word of God and the mandates of science, everything is frequency—and frequency is everything. Science shares this thought by stating that the most common denominator of all structure, the atom, is energy—a form of frequency. An expression attributed to God states that "In the beginning was the Word", and, since sound is also frequency, God joins science in the observation that, at its foundation, frequency is the basis of our universe.

This thought gives credence to the idea that our bodies are frequency and energy. This collection of energy patterns, called a Signature Sound, is a frequency representation of all that we are. If we were to learn the governing patterns of individual Signature Sounds we would be able to interpret and have dominion over all aspects of our mechanical and emotional substance.

Essentially, all forms of curative intervention influence the frequency systems of the body. Heat is a form of frequency; colour is a form of frequency; sound, smell, vibration, homoeopathic remedies, herbs and even medications, at their structural base, are all forms of frequency.

Experiments have been repeated that show that introducing a person the frequency formula for niacin, a nutritive substance, can cause a niacin-like skin flushing—the same as if the person actually ingested the nutrient.

THE EAR AND THE VOICE

No matter what the nature of the input, information is received by the brain in like form. We see frequencies of light that are transformed into electrochemical impulses and sent to the brain. We hear octaves of sound frequencies that are translated into electrochemical impulses and then provided to the brain for interpretation. No matter what we perceive, on what octave, it is all received by the brain via the same route of frequency impulses: brainwaves.

If we are composed of frequency patterns, it seems reasonable to use the most readily available frequency source of the body—the voice—to obtain information about the body. The voice is a source of sound; the ear is the most obvious receiving unit of sound. The voice and the ear form a dynamic system that are extraordinary as inherent diagnostic systems of the body.

Tomatis believes that during gestation the brain is developed from the pattern of the first organ to form: the ear. His techniques have been successful in showing that when hearing is corrected, many learning and emotional problems are eliminated. While the ear deals with innate issues that create the foundation of the energy patterns, the voice is capable of displaying a kinetic account of the body in motion.

VOCAL SOUND ASSESSMENT

As the frequencies of the body become chaotic and manifest symptoms, pain or emotional stress, the vocal print begins to display the same disorganisation.

Using a computer representation of the voice, decibel and frequency levels can be used to identify the stress. The vertical axis is used to show decibel, the horizontal axis to show frequency. Points that are located high on the graph, i.e., "risers", would proportionally represent sound frequencies that are loud and overabundant. Points that are low, i.e., "stringer", would indicate sound frequencies that are not apparent. The objective is to cause the voice to "collect" in a smaller, more unified pattern. Fewer risers and/or stringers would indicate more coherence in a vocal presentation.

AUDITORY SCREENING

The Tomatis Method addresses specific problems of listening, not hearing. Using a listening test, it seeks to evaluate listening strengths and weaknesses. By introducing the ear to filtered and unfiltered sound stimulations through special headphones, the ear is forced to expand its range of perception. Using a patented instrument called the "Electronic Ear", the sounds are gated between two channels and given a precession delay between bone and air conduction. This "filtered music" increases the selective power of the ear.

The client is given the ability to perceive sound with less distortion and to analyse more precisely the fundamental frequencies and harmonics. The Tomatis Method works simultaneously on three levels: functional, emotional and relational.

SOUND FORMULA CREATION AND DELIVERY

Sound therapy should not be confused with frequency therapy that uses ranges that are not considered to be auditory and also delivers the frequencies by way of transducers placed directly in contact with the body. Sound therapy uses ambient sound and/or headphones. The Tomatis Method additionally employs the use of sound delivery through bone conduction.

Sound therapy is very different from music or light therapy because the sounds used are not always within the range of vocal or instrumental octaves. In the case of BioAcoustics, the objective is to entrain brain-waves. To do this, very low frequency sounds are required.

The sounds used by sound therapy are created by frequency-generating and filtering equipment. To involve the client more, both methods encourage the use of the voice as a supplement to mechanical presentations.

The actual results are accomplished by the harmonics of the sound formula formats. Unlike light, sound frequency can be presented over a range of eleven octaves (20 to 20,000 cycles per second), while the known spectrum of visual light is one octave. Shades of light can be extremely varied; shades of frequency can be very precise and

are required to be. In some cases, a difference of .02 hertz can mean the difference between effect and no effect.

AUDITORY SOUND THERAPY APPLICATIONS

Specialities for auditory sound therapy include learning disabilities, problems with speech, language acquisition and development, brain dominance, handedness, singing, hearing and behavioural problems. Vocal sound therapy has had success with varying issues during their research efforts but several specific areas of expertise have emerged—sports injuries and structural problems, pain management, nutritional evaluation and tissue regeneration being among the most successful. Of particular interest in using vocal assessment is the recent finding that implies that the poor use of digestive enzymes is responsible for allergic reactions.

The inventory of unsuccessful outcomes of sound therapy is short. It does not do well against invading forces such as bacteria, viruses, fungi, yeast or parasites, although a vocal analysis pilot project is presently underway and looks promising. Metabolic problems can be detected, but attempts to reverse such issues as overweight have been unsuccessful.

It is not recommended that sound therapy be used for emergency situations such as poisoning, traumatic bleeding, broken bones or issues analogous

to heart attack and appendicitis unless no other treatment is possible. Sound therapy is more appropriate for diagnosis, prediction and the reversal of non-emergency symptomatic conditions. For instance, it would not be suggested that sound therapy be used to set a broken bone, but it could be used to accelerate healing, reduce pain and swelling and decrease the duration of recuperation.

Auditory sound therapy should be used as a first resort when any learning, hearing, language, speech or behavioural problems are suspected. Sound therapy can be used as a diagnostic tool with a great deal of accuracy.

According to the word of God and the mandates of science, everything is frequency—and frequency is everything.

X	DELTA	THETA	ALPHA	BETA	C-3	C-2	C-1	Middle C	NOTE
1.02	2.04	4.08	8.17	16.35	32.70	65.40	130.81	261.63	C
1.08	2.16	4.33	8.66	17.32	34.64	69.29	138.59	277.18	C#
1.14	2.29	4.58	9.17	18.35	36.70	73.41	146.83	293.66	D
1.21	2.43	4.86	9.72	19.44	38.89	77.78	155.56	311.13	Eb
1.28	2.57	5.15	10.30	20.60	41.20	82.40	164.81	329.63	E
1.36	2.72	5.45	10.91	21.82	43.65	87.30	174.61	349.23	F
1.44	2.89	5.78	11.56	23.12	46.24	92.49	185.99	369.99	F#
1.53	3.06	6.12	12.25	24.5	49	98	196	392	G
1.62	3.24	6.48	12.97	25.95	51.91	103.82	207.65	415.3	Ab
1.71	3.43	6.87	13.75	27.5	55	110	220	440	A
1.82	3.64	7.28	14.56	29.13	58.27	116.54	233.08	466.16	Bb
1.92	3.85	7.71	15.43	30.86	61.73	123.47	246.94	493.88	B

Particularly when the symptoms are varied, obscure or non-discriminating, sound therapy can be predictive of issues before they become apparent.

Vocal sound therapy has become a very useful tool for pain relief especially when the use of medication is contraindicated.

PREVENTIVE VALUE OF SOUND THERAPY

Nutritional assessment can be very expensive, but by using vocal assessment it becomes an inexpensive, time-saving, preventive measure.

The identification of seven-year-long problem was solved recently when a nutritional analysis revealed that all components relating to the Krebs cycle were under stress. This shows that sound therapy can provide indicators that would prompt medical attention.

Indications that fibromyalgia may be due to stored drug deposits (prescription or otherwise) in the muscle tissues, are a result of BioAcoustic nutritional vocal analysis. This experimental aspect of sound therapy shows promise as a diagnostic tool.

BioAcoustics is particularly helpful as a supplement to sports medicine and traumatic structural injuries. As a complement to occupational, physical and chiropractic therapies, it shortens and facilitates the exercises.

The condition known as TMJ (Temporomandibular Joint Disorder) has responded particularly well to BioAcoustic methods.

Although the foundational principles of BioAcoustics are not yet completely established, the results are undeniable. From the preliminary research it appears that the sound presentations

cause entrainment of brain-wave frequencies. In turn, these frequencies act as a support to the body until it can maintain them independently.

At present, the scope of practice and treatment of sound therapy is only limited by the number of practitioners and the acceptance by the insurance underwriters. Most practitioners have a waiting list. It wasn't until recently that computerised equipment allowed for the inclusion of BioAcoustic assessment as a complementary tool to conventional wellness practices. These recent improvements in assessment time and presentation delivery will allow sound therapy the potential to become a standard diagnostic tool.

The Tomatis Method is used in 180 facilities in 15 different counties. The Tomatis Centre headquarters are located in Paris, France. The most well-known US centre is located in Phoenix, Arizona and is under the direction of Billie M. Thompson, Ph.D.

BioAcoustics facilities are located in six countries, with many positioned around the US. At present, 1,500 persons have been trained, about 40 per cent of them being medical practitioners, but not all of these individuals are practising.

RESEARCH DISCLOSURES

Most of the present-day research in sound therapy using voice spectral analysis has been done by a corporation called Signature Sound Works, Inc., aka Sound Health Alternatives International, guided by the very unusual healing ability of the founder (this author).

My first publication concerning this work was published as a graduating thesis in 1982. In that initial paper I was very cautious about revealing that I had a very unusual ability. I could hear

sounds emitted from people that were in a range not normally perceived. A hearing test revealed that I could hear well above the normal range and, equally surprising, I could produce sine waves with my voice. The production of sine waves by anything other than a machine is quite unusual. I was tested in three labs, including one at Wright Patterson Air Force Base, to prove the point that my voice was unique.

I was cautioned by my professors and colleagues to keep this information to myself. How could I be hearing sounds being emitted from the side of a person's head? After all, there was nothing there to create a sound and certainly the ear was incapable of making sounds. Later, Wendell Brown of Johns Hopkins University published several papers indicating that the ear is capable of emitting a sound that he calls "oto-acoustic emissions". He assumed that the stapes muscles in the ear were responsible. A recent work by James P. Cowan, titled *Handbook of Environmental Acoustics*, states that the actual formation of the ear canal only lends itself to creating sounds that range from F to A. The sounds that I heard contained a full range of notes over several octaves.

From the preliminary research it appears that the sound presentations cause entrainment of brain-wave frequencies. In turn, these frequencies act as a support to the body until it can maintain them independently.

It is my assumption that the brain creates frequencies that are amplified through the brain fluids. (Liquid is a highly efficient sound-conductive source.) The sounds created by the brain are then amplified by the ear, and this is what I hear.

From being able to hear the sounds being emitted, we were able to use trial and error to correlate sound with diseases and muscles. Being able to have clues that sent us in the right direction made the entire field easier to develop.

The work with Signature Sound and BioAcoustics has been made possible because of this talent that was at first perceived as very esoteric. Today, modern computers and electronics have made it possible for the ideas of BioAcoustics to be moved from the realm of disbelief and fear to the realm of repeatable science and technology. My goal has been to educate, because I believe that what people don't understand, they fear. It has been my mission to prove that what I am capable of doing can be duplicated through technology. I feel very fortunate to have been able to contribute many of the clues that have made this particular branch of sound therapy possible.

I will continue to work with those persons who are non-verbal and hopefully, in the very near future, we will be able to develop a microphone that will determine the body's frequencies without the need for voice spectral analysis.

Eventually we will be able to use this technique with animals and, in the not-too-distant future, to help our environment.

FUTURE PROSPECTS

Sound therapy was originally developed to consider the potential applications for the frequencies thought to emanate from living systems.

Now that the foundation work is completed, the possibilities are far more extensive than previously imagined. Areas of development for sound therapy are being explored. As both branches of sound therapy have different potential applications, these are listed separately.

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Tomatis Method

- enhanced and accelerated learning
- reversal of problems of language and speech acquisition
- increased information integration
- efficiency of communication, self-expression and self-perception
- improved vocal range and hearing
- reversal of behavioural problems such as attention, concentration, memory, aggression, hyperactivity and regressive tendencies.
- problems with lateral dominance and handedness
- reversal of learning disabilities and problems with reading, writing, spelling and calculation

The reversal of language, speech, behaviour and learning disabilities that were previously thought to be irreversible is a very real proposition using the innovative patterns of delivery, gating, bone- and ear-conductive methods of the Tomatis Method.

BioAcoustics

- support for improvement of sports injuries and trauma

- blood chemical evaluation
- predictive biological system analysis for insurance and medical models
- individualised medications that would reduce side-effects
- medical monitoring through voice spectral analysis via telephone
- drug and chemical screening for law enforcement agencies
- large area pest control without creating environmental side-effects
- as an insect or shark repellent
- as a non-toxic fertiliser
- food preservation through low-frequency presentation
- reversal of environmental pollution

The attempts to reverse sports injuries have led to the mapping of each muscle as it responds to low-frequency sound. Using brain-wave entrainment, we have been able to strengthen weak muscles, weaken overstimulated or blocked muscles, alleviate a considerable amount of pain and reduce recovery time.

BioAcoustic blood chemical evaluation is an actual program of information that will show the relationship of chemical elements within the body. Using a non-intrusive vocal print, the presence and usage of chemical elements can be determined. The

technique provides instant feedback, and is very inexpensive to administer and execute. This technique has the potential to add to the present medical database regarding the interrelationships of chemical elements. It could be used by nutritional outlets, medical and hospital laboratories and individuals who take supplements. The elimination of drug-related side-effects is also a potential outcome of this technique.

Sound therapy has shown considerable promise to allow scientists to glimpse the interconnected systems of the body; not just as closed systems that work together but the actual play between muscles and muscles, muscles and biochemistry, muscles and emotions, etc.

Using vocal prints of all individuals involved, problem areas and compatibilities can be identified. This technique could work well in negotiation settings, work disputes, marriage and family counselling, etc.

As for other applications, in one test using low-frequency sound, mosquito pests have been persuaded to leave an area. Studies have been conceived for repelling or attracting any pest species using low-frequency sounds.

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In food preservation and storage technology applications, only one pilot project has been completed but the results show that low frequencies can retard spoilage.

BioAcoustic sound therapy has potential in reversing the effects of pollution and poisons, whether they be in the body or in the Earth.

Recommended Reading

- Becker, Robert O., *Cross Currents*, Jeremy P. Tarcher, Inc., Los Angeles, CA, USA, 1990.
- Becker, R. O. and Sleden, G., *The Body Electric*, Guill, New York, NY, USA, 1985.
- Bonny, H. and Savary, L., *Music and Your Mind*, Station Hill Press, Barrytown, NY, USA, 1990.
- Brown, Wendall, Johns Hopkins University, papers.
- Cowan, James P., *Handbook of Environmental Acoustics*, Van Nostrand Reinhold, New York, NY, USA, 1994.
- Edwards, Sharry, *Published Papers - 1982-1993*, Signature Sound Press, Athens, OH, USA, 1995, 12th Edition.
- Edwards, Sharry, *Published Papers - 1993-1995*, Sound Health Publications, Athens, OH, USA, 1996.
- Edwards, Sharry, "Five Cases Suggesting that Biological Screening for Chemical Elements can be Facilitated through Voice Spectral

Analysis", *MegaBrain Report*.

- Edwards, Sharry, "Low Frequency Sound: Its Efficacy as a Biofeedback Modality to Verify Muscle Strength and Weakness" (pilot research report), Sound Health Press, Athens, OH, USA, 1996.
- James, Jamie, *The Music of The Spheres*, Copernicus of Springer-Verlag, New York, NY, USA, 1993.
- Gerber, Richard, *Vibrational Medicine*, Bear & Company, Santa Fe, NM, USA, 1988.
- Godwin, Joscelyn (ed.), *Cosmic Music*, Inner Traditions, Rochester, VT, USA, 1989.
- Halpern, Steven, *Sound Health*, Harper & Row, San Francisco, CA, USA, 1985.
- Hunt, Valerie, *Infinite Mind*, Malibu Publishing, Malibu, CA, USA, 1996.
- O'Connor, M. E., Bentall, R. H. C., Monahan, J. C. (eds.), *Emerging Electromagnetic Medicine*, Springer-Verlag, New York, NY, USA, 1990.
- Pond, Dale, *Vibratory Physics*, Delta Spectrum Research, Tulsa, OK, USA, 1995.
- Srinivasan, T. M. (ed.), *Energy Medicine Around The World*, Gabriel Press, Phoenix, AZ, USA, 1988.
- Talbot, Michael, *The Holographic Universe*, HarperCollins, New York, NY, USA, 1991.
- Tomatis, Alfred A., *The Conscious Ear*, Station Hill Press, Barrytown, NY, USA, 1991.
- Tomatis, Alfred A., *The Ear and Language*, Moulin Publishing, Norval, Ontario, Canada, 1996.

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Tomatis Centres:

- Sound Listening and Learning Centre, Phoenix, AZ, USA, telephone (612) 381 0086; contact, Billie M. Thompson, Ph.D.
- The Tomatis Centre (UK), Lewes, E. Sussex; telephone: +44 01273 478666.
- The Australian Tomatis Centre, Gordon, NSW; telephone (02) 9418 4130.

Sound Therapy Centres:

- Sound Education (Australia), Melba, ACT; telephone (06) 259 1364; contact, Kay Distel.